# CW161009A Series – 0603 Chip Inductors

## Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance L (nH)</th>
<th>Tol.</th>
<th>Min.</th>
<th>Max.</th>
<th>Typ.</th>
<th>L (Q) Min.</th>
<th>Q Max.</th>
<th>DC/Max.</th>
<th>L (Q) Min.</th>
<th>Q Max.</th>
<th>DC/Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW161009A-1N6D</td>
<td>1.6 ±0.3 nH</td>
<td>18</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>12500</td>
<td>0.030</td>
<td>700</td>
<td>12500</td>
<td>0.030</td>
<td>700</td>
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<tr>
<td>CW161009A-1N8D</td>
<td>1.8 ±0.3 nH</td>
<td>16</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>8500</td>
<td>0.045</td>
<td>700</td>
<td>8500</td>
<td>0.045</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-2N2D</td>
<td>2.2 ±0.3 nH</td>
<td>13</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>8500</td>
<td>0.110</td>
<td>700</td>
<td>8500</td>
<td>0.110</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-3N3J</td>
<td>3.3 ±5 %</td>
<td>35</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>6000</td>
<td>0.045</td>
<td>700</td>
<td>6000</td>
<td>0.045</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-3N6J</td>
<td>3.6 ±5 %</td>
<td>22</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>6000</td>
<td>0.070</td>
<td>700</td>
<td>6000</td>
<td>0.070</td>
<td>700</td>
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<tr>
<td>CW161009A-3N9J</td>
<td>3.9 ±5 %</td>
<td>22</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>6900</td>
<td>0.070</td>
<td>700</td>
<td>6900</td>
<td>0.070</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-R15J</td>
<td>150.0 ±5 %</td>
<td>30</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>990</td>
<td>0.850</td>
<td>700</td>
<td>990</td>
<td>0.850</td>
<td>700</td>
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<tr>
<td>CW161009A-R18J</td>
<td>180.0 ±5 %</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>990</td>
<td>1.000</td>
<td>700</td>
<td>990</td>
<td>1.000</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-R22J</td>
<td>220.0 ±5 %</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>990</td>
<td>1.800</td>
<td>700</td>
<td>990</td>
<td>1.800</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-R27J</td>
<td>270.0 ±5 %</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>990</td>
<td>2.100</td>
<td>700</td>
<td>990</td>
<td>2.100</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-R33J</td>
<td>330.0 ±5 %</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>990</td>
<td>2.500</td>
<td>700</td>
<td>990</td>
<td>2.500</td>
<td>700</td>
</tr>
<tr>
<td>CW161009A-R39J</td>
<td>390.0 ±5 %</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>990</td>
<td>3.900</td>
<td>700</td>
<td>990</td>
<td>3.900</td>
<td>700</td>
</tr>
</tbody>
</table>

## Features
- Ceramic core provides stable electrical characteristics
- High self-resonant frequency
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

## General Specifications
- **Operating Temperature**: -40 °C to +125 °C (Temperature rise included)
- **Storage Temperature**: -40 °C to +125 °C (Temperature Rise...15 °C at rated Irms)
- **Moisture Sensitivity Level**
  - ESD Classification (HBM)
  - 1

## Materials
- Core Material: Ceramic
- Wire: Enameled copper (Class H)
- Terminal: Mo/Mn/Ni/Au
- Packaging: 3,000 pcs. per 7-inch reel

## Recommended Layout

** Bourns considers a product to be “halogen free” if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

For more information, see the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.
CW161009A Series – 0603 Chip Inductors

Solder Profile

PRE-HEATING  SOLDERING  NATURAL

COOLING

Temperature (°C)

160
190
220
1 - 4 °C / sec
90 - 120 seconds
30 - 60 seconds

Time (Seconds)

90 ~ 120 seconds
1 ~ 4 °C / sec
1 ~ 4 °C / sec

Packaging Specifications

Dimensions: MM (INCHES)

QTY: 3,000 PCS PER REEL

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